

Linear Algebra and Differential Equations (BBS01T1003)

Question 1

Not yet
answeredMarked out of
0.50

Flag question

The number of essential arbitrary constants in the general solution of a second order differential equations is:

Note: If your answer is 6, type

6

Answer: 2

Question 2

Not yet
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0.50

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On solving non homogeneous ODE, when function is polynomial type. We put denominator term in binomial series form and then solve.

Select one:

- ☒ True
- ☐ False

Question 3

Not yet
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0.50

Flag question

The solution of the differential equation $y' - 5y = 0$.

Select one:

- ☐ a. e^{-5x}
- ☐ b. e^{-x}
- ☒ c. e^{5x}
- ☐ d. e^{3x}

[Clear my choice](#)

Quiz navigation

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10								

[Finish attempt ...](#)

Time left 0:11:25

Question 4

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In solving homogeneous ODE, when roots are equal, CF is-

Select one:

- ☒ a. $(c_1 + xc_2)e^{mx}$
- ☐ b. None of these
- ☐ c. $(c_1e^{m_1x} + c_2e^{m_2x})$
- ☐ d. $(c_1x + c_2x^2)e^{mx}$

[Clear my choice](#)

Question 5

Not yet
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A differential equation is called an ordinary differential equation if it has

Select one:

- ☐ a. more than two independent variables
- ☐ b. more than one independent variable
- ☒ c. only one independent variable
- ☐ d. only one dependent variable

[Clear my choice](#)

Question 6

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Solution of $y'' - y = 0$ is $(c_1x + c_2)e^x$

Select one:

- ☐ True
- ☒ False

Question 7

Not yet
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0.50

Flag question

Number of arbitrary constants in solution of $y'' + y = x$ is---

Select one:

- ☐ a. 3

Question 7

Not yet
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0.50

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Number of arbitrary constants in solution of $y''+y=x$ is---

Select one:

- ☐ a. 3
- ☐ b. 4
- ☐ c. 1
- ☒ d. 2

[Clear my choice](#)

Question 8

Not yet
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0.50

Flag question

Solution of $y''=0$ is $\cos x + \sin x$

Select one:

- ☐ True
- ☒ False

Question 9

Not yet
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0.50

Flag question

The necessary and sufficient condition for an first order ODE $Mdx+Ndy = 0$ to be exact is $\frac{\partial M}{\partial y} = \frac{\partial N}{\partial x}$

Select one:

- ☒ True
- ☐ False

Question 10

Not yet
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Flag question

The dorder and degree of the differential equation is:

$$\frac{d^2 y}{dx^2} + 3\left(\frac{dy}{dx}\right)^2 + y = e^x$$

Select one:

- ☐ a. 1,1
- ☐ b. 1,2

Question 8

Not yet
answeredMarked out of
0.50

Flag question

Solution of $y''=0$ is $\cos x + \sin x$

Select one:

- ☐ True
- ☒ False

Question 9

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Flag question

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Select one:

- ☒ True
- ☐ False

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Select one:

- ☐ a. 1,1
- ☐ b. 1,2
- ☒ c. 2,1
- ☐ d. 2,2

[Clear my choice](#)

Finish attempt ...